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PERSPECTIVES



An RRI for the present moment: relational and 'well-up' innovation

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ABSTRACT

The ultimate framing of the first iteration of RRI as enabling smart, inclusive, sustainable growth had as much to do with the financial crisis then engulfing the Eurozone as meeting the goals of the Lisbon Treaty. Now we have come to the end of Horizon 2020, it is presently unclear how RRI will continue to be addressed as it is mainstreamed into Horizon Europe. In this Perspective, we will argue that discussions about placing responsibility at the centre of innovation should not solely be aimed at promoting GDP-measured growth. Our vision must be longer, more global, more transformative. In this short piece, we explore the possibilities arising through extending 'responsibility' to an a-growth approach to innovation, one which emphasises the relational dimensions of responsible innovation through the concept of 'well up' economics.

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Introduction

When first discussed at the European Commission in the early 2010s, a broad spectrum of possible meanings and implications of Responsible Research and Innovation (RRI) was on offer. Some of these considerations made it into the form of RRI which was eventually embedded, albeit incompletely, in the Horizon 2020 programme. Others, such as 'stewardship of the future' and 'commitment to care' (EC 2011) have yet to be enacted in meaningful ways. Now, as Horizon 2020 becomes Horizon Europe, co-design is gaining prominence, at least amongst academics, as a way of guiding technological development (Robinson, Simone, and Mazzonetto 2020) – an achievement based on a large volume of research on the theory and practice of involving stakeholders and publics in RRI projects

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(much of which has been published in this journal). However, the Strategic Plan for Horizon Europe (European Commission 2019), in which RRI is now mainstreamed, mentions growth 46 times, co-design 10 times and RRI not at all.

One of the historical challenges facing the EU's policy of RRI has been its emergence in conditions of 'secular stagnation' (Summers 2014), a state of low-to-no growth within industrialised nations that have achieved their productivity peak, which innovation-for-growth alone cannot effectively address (Jackson 2019). A complex and controversial topic (c.f. Teulings and Baldwin 2014; Pagano and Sbracia 2014; Anselmann 2020), we nevertheless find it a useful heuristic for this discussion. If secular stagnation is to be the context of innovation for the foreseeable future, then responsible innovation could offer something beyond merely mitigating risks and benefits, a pathway towards embracing our responsibilities to the future, the earth and each other, whatever that might mean for GDP-measured growth (de Saille et al. 2020). In this *perspective* we unpack this argument further, offering 'responsible stagnation' as a form of responsible innovation that is agnostic to growth but sensitive to the relational dimensions of responsible innovation, and the concept of 'well-up' economics as an alternative metric.

Growth isn't working

Policy discussions of RRI and related approaches to responsible innovation often presume an economic outcome without examining the economic context in which innovation occurs. Consider the presumption that human progress comes primarily through interactions within globalised free-markets, and which is reflected, for example, in the 8th UN Sustainable Development Goal of 'decent work and economic growth'. 'Growth' is generally interpreted to imply increasing real (i.e. inflation adjusted) GDP. However, there are several problems with this definition of progress.

In the first place, it is not clear that economic growth facilitates decent work. After a 'jobless and wageless recovery' (Calvo, Coricelli, and Ottonello 2012) from the 2008 financial crisis, in 2019 there were only enough *good* jobs for half – and only enough *great* jobs for 5% – of the global labour force (Clifton 2019). Innovation that leads to productivity growth is likely to exacerbate this shortfall in *decent* work. As knowledge increases, market power shifts in favour of those who are in a position to enclose, commodify, and exploit intellectual property and the resources it requires, and have greater means to appropriate the benefits of innovation compared to those with only their labour to sell. The latter are therefore more likely to see their bargaining power in the market decline (Gómez-Baggethun and Ruiz-Pérez 2011; Behrens et al. 2007).

Secondly, the supposed benefit of GDP growth is based on the assumption that aggregate increases in income and expenditure will benefit all members of an economy. Although some economists insist that wealth increases do trickle down to the rest of the population, there are historical examples that indicate that productivity increases tend to suck collective wealth upward instead (c.f. Komlos 1998). More recent empirical research also does not show a trickle-down effect from tax cuts for the rich (Berisha 2018) or from policies such as quantitative easing (Watkins 2014). In general, the evidence for the so-called trickle-down effect is mixed at best (e.g. Aghion and Bolton 1997, 152; Basu and Mallick 2008, 461). In such cases, the fate of the economically vulnerable may be

imperilled unless they can access sufficient agency to resist exploitation, for example, through relational innovations such as unionisation. As Stiglitz (2015: 134) argues, '[t]he trickle-down notion ... needs urgent rethinking'.

Further, headline GDP growth data do not account for much of the costs of growth. These may be passed: into the future through increasing financial debt, exacerbating the risk of future financial crises (Kose et al. 2021); onto other stakeholders through driving down or constraining terms and conditions of employment of the vulnerable (see, for e.g. Madrick and Papanikolaou 2010); and/or into the wider environment through ecological damage (Rice 2007). If such unaccounted costs are offset against GDP, it is reasonable to conclude there has been little to no real (i.e. inflation adjusted) sustainable global growth for decades (Kubiszewski et al. 2013). Even before the impact of COVID-19, the OECD had predicted global growth would become increasingly difficult to sustain (Braconier, Nicoletti, and Westmore 2014).

Ultimately, as a method of coordination, transactional markets are amoral and therefore consider neither benefits nor costs from the holistic perspective imagined by frameworks for responsible innovation. Thus, the growth imperative makes use of both old and new forms of dispossession and colonisation (see e.g. Pansera and Owen 2018) and separates such frameworks from discussions about the socio-political economy in which innovation occurs (Van Oudheusden 2014).

From transactional to relational

We do not argue that Responsible Innovation should stand in opposition to growth; however, it must be robust to situations of low-to-no growth. Herein, the term 'responsible' indicates innovation that is appropriate in prevailing socio-economic conditions, innovation which will not compromise the wellbeing of vulnerable stakeholders or of future generations. Responsible innovation as 'stewardship of the future' and 'commitment to care' is also innovation that promotes social inclusion, geographically and temporally. This may include, but is not limited to, the idea of 'inclusive growth' as defined by the OECD (2018), in which growth and the opportunities it creates are to some extent distributed across society. However, equitable distribution in market conditions is unlikely; it is for this reason that we consider 'innovation' as something that extends beyond the market, producing a change in social relations.

Relational innovation

The transactional economy of enclosure, commodification and marketisation relies on pre-existing relationships. However, in free-markets, relational motivations are often downplayed in favour of monetary incentives (Smith 1776: BkI ChII). Yet market based competition can undermine relationships (Röpke 1950, 52), the maintenance of which is the source of much human happiness (Demir 2013). Relationships also have a part to play in material wellbeing. Research in ecological economics and community economies, for example, and in frugal, social, grassroots and other models of innovation, has shown that there are diverse socio-economic relationships beyond transactional money-based systems. These enable people to secure their livelihoods in a variety of ways (Gibson-Graham, Cameron, and Healy 2013), and to engage in innovation in a

way that does not rely on conventional markets. Such approaches call attention to the socio-economic worlds that exist and sustain wellbeing outside the dominant transactional logics of possession and dispossession (Mamidipudi, Syamasundari, and Bijker 2012).

A relationship to care, for example, rather than to the imperative of transactional growth, may re-configure economies holistically as spaces for political possibility, experimentation, and new forms of innovation. Tronto (2017) argues that care is also a matter of repairing and sustaining our world; as an everyday material practice, it is not necessarily outcome oriented nor does it necessarily try to ‘fix’ problems and vulnerabilities. It is a relational mode of co-existing *with* vulnerabilities by acknowledging dependencies and limits.

A commitment to the relational, rather than the transactional, makes space for renegotiating and humanising our ways of understanding growth, progress, development and knowledge, innovating in support of (rather than in spite of) environmental dependence and planetary limits. It emphasises the development of agency of all participants and the respect of local culture, rather than the imposition of a globally homogenising transactional worldview. The following questions may help determine whether a particular innovation sacrifices the relational to the transactional:

- What kind of relationships does it challenge or produce?
- What are the costs/benefits to wellbeing and agency as a result of these relational changes?
- To what extent does the innovation enable, result from, support or challenge various agents’ ability to care?

A relational approach to motivating and evaluating innovation (broadly speaking) emphasises solidarity and connexion among humans, non-humans, the environment and technology over relations of enclosure, extraction and transaction. Innovations to sustain economies, ecologies, communities, and wellbeing must therefore be relational at their core.

Well-up innovation

Improving relationships oriented towards care cannot, of course, altogether offset material deprivation. Therefore, it is important also to consider matters of economic vulnerability, inequality and justice. While a quest for perfect equality is utopian, it seems reasonable to propose that responsible innovation should not, without good reason, exacerbate existing inequalities (e.g. Monteiro, Shelley-Egan, and Dratwa 2017). Furthermore, given the fairly wide uptake of Rawlsian principles in diverse articulations of responsible innovation (e.g. Pellé 2016; Taebi et al. 2014; Wong 2016), it is reasonable to define a responsible innovation system as one in which the greatest possible benefits of the innovation accrue to the least-advantaged members of society (Rawls 1971). Such an approach to innovation calls for a ‘two-fold innovation focus’ in which principles of justice and creating stability for the future inform new spaces for innovation (Ziegler 2015).

This is not to suggest that vulnerable groups are in need of perpetual economic and technological fixes to be dispensed by elites through innovation (cf. Van Oudheusden 2014); rather that responsible innovation must be judged by its impact on both material returns and the *agency* of the most vulnerable – including the agency of future generations. We propose the term ‘well-up’ to capture both of these criteria.

The principle of ‘well-up’ follows from Rawls’ (1971) second principle of justice, which argues that, subject to considerations of equal civil liberties (Rawls’ first principle), inequality can be justified only if it leads to the greatest benefit to the least advantaged. The term is chosen to contrast with the principle of ‘trickle down’, under which theory it is the material conditions of economic elites which are prioritised, as discussed above.

The following ‘well-up’ questions may help determine whether an innovation is systemically just:

- Compared with current innovations, and alternative uses of the same resource, what are the benefits and costs of this innovation for the most vulnerable stakeholders?
- Does the innovation enhance the agency of the most vulnerable stakeholders?

In short, well-up innovation must prioritise the needs of those who have the least power, over the preferences of those who have the most. This principle is rooted in Rawlsian principles of justice and decades of economic data which show, as we have discussed above, that further enriching economic elites is *not* the best way to increase prosperity for all.

A current example of the application of well-up principles may be seen in the global vaccination programme for COVID-19. However imperfectly implemented, it is generally accepted in many countries that the most vulnerable, for example the elderly and front-line health workers, not the most affluent, ought to take priority. The adoption of well-up principles more widely would represent a profound reconsideration of economic evaluation criteria away from considering aggregate benefits to considering who might benefit most.

Conclusion

We have argued that much of what passes for material (economic) growth in the global economy is underpinned by increasing financial and ecological debt. Further, if we do consider developed economies to be suffering from secular stagnation, and to have reached a point where productivity gains will benefit only a small percent and perhaps harm a great many (Kubiszewski et al. 2013; Summers 2014; Braconier, Nicoletti, and Westmore 2014), then growth-seeking paradigms of innovation may in fact be inappropriate, even irresponsible. However, this does not mean human progress must come to a halt.

A different concept of innovation is required, one which promotes relational affluence, rather than material affluence – particularly in countries where basic needs for most are already met. Complementing that of relational innovation, the principle of well-up innovation argues that whatever further material progress is possible ought to benefit those who remain the most materially deprived.

With over a decade of scholarship and policy making around responsible innovation, broadly understood, and as much of the world looks to a post-pandemic return, the time is ripe to incorporate well-up and relational innovation alongside questions about who benefits from innovation and who is impacted, who is engaged and how. This will help align the values of care, stewardship, social welfare and sustainability with a vision of progress that promotes multiple forms of human and social affluence and that re-conceptualizes and re-organizes resource distribution to address the needs of the most marginalised groups.

To ensure such a vision of responsible innovation, the agenda of Horizon Europe needs to adopt a holistic approach to innovation, acknowledge the relational and material interdependencies among different regions of the world and promote innovations that advantage those with the most situational improvement to gain.

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References

- Aghion, P., and P. Bolton. 1997. "A Theory of Trickle-Down Growth and Development." *The Review of Economic Studies* 64 (2): 151–172.
- Anselmann, C. 2020. *Secular Stagnation Theories: A Historical and Contemporary Analysis with a Focus on the Distribution of Income*. Cham, Switzerland: Springer.
- Basu, S., and S. Mallick. 2008. "When Does Growth Trickle Down to the Poor? The Indian Case." *Cambridge Journal of Economics* 32 (3): 461–477.
- Behrens, A., S. Giljum, J. Kovanda, and S. Niza. 2007. "The Material Basis of the Global Economy: Worldwide Patterns of Natural Resource Extraction and Their Implications for Sustainable Resource use Policies." *Ecological Economics* 64 (2): 444–453.
- Berisha, E. 2018. "Trickle Down? A Little bit." *Economics Bulletin* 38 (2): 725–732.
- Braconier, H., G. Nicoletti, and B. Westmore. 2014. *Policy Challenges for the Next 50 Years*: OECD Economic Policy Paper No 9. Accessed 15 February 2021. https://www.oecd-ilibrary.org/economics/policy-challenges-for-the-next-50-years_5jz18gs5fckf-en.
- Calvo, G. A., F. Coricelli, and P. Ottonello. 2012. *Labor Market, Financial Crises and Inflation: Jobless and Wageless Recoveries*. NBER Working Paper 18480. Cambridge, MA: National Bureau of Economic Research. Accessed 8 March 2021. https://www.nber.org/system/files/working_papers/w18480/w18480.pdf.
- Clifton, J. 2019. *Is it Time to Retire Global Unemployment?* Gallup Blog (10 December). Accessed 1 February 2021. <https://news.gallup.com/opinion/gallup/268922/time-retire-unemployment.aspx>.
- de Saille, S., F. Medvecky, M. Van Oudheusden, K. Albertson, E. Amanatidou, T. Birabi, and M. Pansera. 2020. *Responsibility Beyond Growth: A Case for Responsible Stagnation*. Bristol: Bristol University Press.
- Demir, M. 2013. "Introduction to Relationships and Happiness." In *The Oxford Handbook of Happiness*, edited by I. Boniwell, S. A. David, and A. C. Ayers, 817–820. Oxford: Oxford University Press.
- European Commission. 2011. *Newsletter, DG Research Workshop on Responsible Research & Innovation in Europe*. Accessed 15 February 2021. https://ec.europa.eu/research/science-society/document_library/pdf_06/responsible-research-and-innovation-workshop-newsletter_en.pdf.
- European Commission. 2019. *Orientations towards the First Strategic Plan for Horizon Europe*. Accessed 8 March 2021. https://ec.europa.eu/info/files/orientations-towards-first-strategic-plan-horizon-europe_en.
- Gibson-Graham, J.-K., J. Cameron, and S. Healy. 2013. *Take Back the Economy: An Ethical Guide for Transforming our Communities*. Minneapolis: University of Minnesota Press.
- Gómez-Baggethun, E., and M. Ruiz-Pérez. 2011. "Economic Valuation and the Commodification of Ecosystem Services." *Progress in Physical Geography* 35 (5): 613–628.
- Jackson, T. 2019. "The Post-Growth Challenge: Secular Stagnation, Inequality and the Limits to Growth." *Ecological Economics* 156: 236–246.
- Komlos, J. 1998. "Shrinking in a Growing Economy? The Mystery of Physical Stature During the Industrial Revolution." *Journal of Economic History* 58 (3): 779–802.
- Kose, M. A., P. Nagle, F. Ohnsorge, and N. Sugawara. 2021. *Global Waves of Debt: Causes and Consequences*. Geneva: World Bank Publications. Accessed 10 June 2021. <https://www.worldbank.org/en/research/publication/waves-of-debt>.
- Kubiszewski, I., R. Costanza, C. Franco, P. Lawn, J. Talberth, T. Jackson, and C. Aylmer. 2013. "Beyond GDP: Measuring and Achieving Global Genuine Progress." *Ecological Economics* 93: 57–68.
- Madrick, J., and N. Papanikolaou. 2010. "The Stagnation of Male Wages in the US." *International Review of Applied Economics* 24 (3): 309–318.
- Mamidipudi, A., B. Syamasundari, and W. Bijker. 2012. "Mobilising Discourses: Handloom as Sustainable Socio-Technology." *Economic and Political Weekly* 47 (25): 41–51.

- Monteiro, M., C. Shelley-Egan, and J. Dratwa. 2017. "On Irresponsibility in Times of Crisis: Learning from the Response to the Zika Virus Outbreak." *Journal of Responsible Innovation* 4 (1): 71–77.
- OECD. 2018. *Opportunities for All: The Framework for Policy Action on Inclusive Growth*. Paris: OECD Publishing. Accessed 17 June 2021. <https://oe.cd/2hj>.
- Pagano, P., and M. Sbracia. 2014. *The Secular Stagnation Hypothesis: A Review of the Debate and Some Insights*. Bank of Italy Occasional Paper 231. Accessed 16 June 2021. <https://www.bancaditalia.it/pubblicazioni/qef/2014-0231/QEF-231.pdf>.
- Pansera, M., and R. Owen. 2018. "Innovation for De-Growth: A Case Study of Counter-Hegemonic Practices from Kerala, India." *Technology and Degrowth* 197 (2): 1872–1883.
- Pellé, S. 2016. "Process, Outcomes, Virtues: The Normative Strategies of Responsible Research and Innovation and the Challenge of Moral Pluralism." *Journal of Responsible Innovation* 3 (3): 233–254.
- Rawls, J. 1971. *A Theory of Justice*. Cambridge: Mass.: Harvard University Press.
- Rice, J. 2007. "Ecological Unequal Exchange: Consumption, Equity, and Unsustainable Structural Relationships Within the Global Economy." *International Journal of Comparative Sociology* 48 (1): 43–72.
- Robinson, D. K. R., A. Simone, and M. Mazzonetto. 2020. "RRI Legacies: Co-Creation for Responsible, Equitable and Fair Innovation in Horizon Europe." *Journal of Responsible Innovation*, doi:10.1080/23299460.2020.1842633.
- Röpke, W. 1950. *The Social Crisis of our Time*. Chicago: University of Chicago Press.
- Smith, A. 1776. *An Inquiry Into the Nature and Causes of the Wealth of Nations* (5th ed) (1904). London: Methuen & Co., Ltd.
- Stiglitz, J. E. 2015. "Inequality and Economic Growth." *The Political Quarterly* 86 (S1): 134–155.
- Summers, L. H. 2014. "Reflections on the 'New Secular Stagnation Hypothesis.'" In *Secular Stagnation: Facts, Causes and Cures*, edited by C. Teulings, and R. Baldwin, 27–38. London: Centre for Economic Policy Research.
- Taebi, B., A. Correlje, E. Cuppen, M. Dignum, and U. Pesch. 2014. "Responsible Innovation as an Endorsement of Public Values: The Need for Interdisciplinary Research." *Journal of Responsible Innovation* 1 (1): 118–124.
- Teulings, C., and R. Baldwin, eds. 2014. *Secular Stagnation: Facts, Causes and Cures*. London: Centre for Economic Policy Research.
- Tronto, J. 2017. "There is an Alternative: Homines Curans and the Limits of Neoliberalism." *International Journal of Care and Caring* 1 (1): 27–43.
- Van Oudheusden, M. 2014. "Where are the Politics in Responsible Innovation? European Governance, Technology Assessments, and Beyond." *Journal of Responsible Innovation* 1 (1): 67–86.
- Watkins, J. P. 2014. "Quantitative Easing as a Means of Reducing Unemployment: a new Version of Trickle-Down Economics." *Journal of Economic Issues* 48 (2): 431–440.
- Wong, P.-H. 2016. "Responsible Innovation for Decent Nonliberal Peoples: A Dilemma?" *Journal of Responsible Innovation* 3 (2): 154–168.
- Ziegler, R. 2015. "Justice and Innovation – Towards Principles for Creating a Fair Space for Innovation." *Journal of Responsible Innovation* 2 (2): 184–200.